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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/661,813 | 09/15/2003 | Sankar Dasgupta | P63902 | 7391 |
| 22839 | 7590 | 07/05/2006 | EXAMINER | |
| RICHES, MCKENZIE & HERBERT, LLP SUITE 1800 2 BLOOR STREET EAST TORONTO, ON M4W 3J5 CANADA | | | BERHANE, ADOLF D | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2838 | |

DATE MAILED: 07/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/661,813

Applicant(s)

DASGUPTA ET AL.

Examiner

Adolf Berhane

Art Unit

2838

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/19/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15,28-32,47-49 and 51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15,28-32,47-49 and 51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-11, 15, 28-32, 47-49 and 51 are rejected under 35 U.S.C. 102(e) as being anticipated by King (6,331,365).

King discloses a traction motor drive system in Figs. 2-7. A motor drive system with a first rechargeable battery (24) and a second rechargeable battery (48), boost converter (34) to boost the voltage available from the rechargeable battery (24), the first rechargeable battery has a higher impedance than the second rechargeable battery (col. 1, line 40), the electrical energy stored in the energy battery drive the motor, the second rechargeable battery is recharged by the first rechargeable battery (col. 5, line 21) via a controller having a switch (40), the first rechargeable battery can be a lithium-ion battery (col. 6, line 64) and the secondary rechargeable can be a lead acid battery (col. 1, line 36).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over King (6,331,365).

King discloses the claimed invention except for the lithium-ion battery being a lithium polymer battery pack, or the presence of a rechargeable connectable to an external power source. However, the invention as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made because the artisan would be motivated to use lithium polymer battery pack having a sealed plastic cover as the lithium battery of King. These batteries are known for high safety and energy density, due to their relatively small size. As such, the artisan would be motivated to use a lithium polymer battery pack as the lithium battery of King. Further, it would be obvious to include a recharger connectable to an external power source and to the energy battery (24). As noted at column 6, line 60, the energy battery is disclosed as electrically rechargeable, i.e., rechargeable from an external recharging source. Thus, it would be obvious to include a device to perform this recharging in order to prevent overcharging.

Response to Arguments


5. Applicant's arguments filed 6/19/06 have been fully considered but they are not persuasive. Applicant argues that King does not mention impedance of the batteries. Applicant's attention is directed to King's reference Col. 3, line 30-45 which states the rechargeable battery (24) has an higher energy density, which means it has a higher impedance and col. 5, lines 25-42 also mention the energy density of the second

rechargeable battery. Applicant argues that the two battery are not connected in parallel, Applicants attention is directed to Fig. 4 which shows the first rechargeable battery (24) connected in parallel to the second rechargeable battery (48). Applicant further argues that the first battery is spatially proximate the motor and the second battery is spatially remote for the motor. Applicant does not show a drawing as the proximate location of the battery but both batteries are located in the vehicle and remote to the motor can't not be given any weight since any battery in a vehicle can be in a spatially proximate or spatially remote to the motor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adolf Berhane whose telephone number is 571-272-2077. The examiner can normally be reached on Monday- Friday 8 AM to 6 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Karl Easthom can be reached on 571-272-1989. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Adolf Berhane
Primary Examiner
Art Unit 2838